

**LEQUE ISLAND STAKEHOLDER ADVISORY COMMITTEE**  
**MEETING #3**  
**January 22, 2015**  
**6:30 to 8:30 pm**  
**Stanwood Middle School**

**Meeting objectives:**

Stakeholder Committee members understand and have an opportunity to provide input on the following:

- The current status of the overall effort
- The results of PNNL's (Battelle) hydrodynamic modeling analysis for each of the six alternatives
- The application and preliminary results of the screening criteria for each of the six alternatives
- Project next steps

**Committee members in attendance**

Allen Gibbs, Pilchuck Audubon  
Bill Blake, Stillaguamish Watershed Council  
Echo Walker, UW Student  
Chuck Hazleton, Stillaguamish Flood Control District  
Jason Griffith, Stillaguamish Tribe  
Jason Westfall  
Jim Locke, Pheasants Forever  
John Edison, Ducks Unlimited  
Karl Ostrom, WA Waterfowl Association  
Kat Morgan, The Nature Conservancy  
Kathleen Snyder, Pilchuck Audubon  
Keeley O'Connell, Snohomish County MRC  
Keith Williamson  
Kenneth Raedeke, UW Faculty  
Kevin Plambeck, Juniper Beach Water District  
Marlin Greene, Friends of Eide Road  
Rick Skiba, WA Waterfowl Association  
Steve Aslanian, Skagit Audubon  
Timothy Manns, Skagit Audubon

**Others attending:**

Belinda Rotton, DFW  
C.K. Eidem, Ducks Unlimited  
Doug Hennick, Wild Fish Conservancy  
Elizabeth Butler, RCO  
Hilary Wilkinson, Veda Environmental  
Jenna Friebe, WDFW  
Joan Poor, Pilchuck Audubon  
Joe Christianson  
Kit Crump, Stillaguamish Watershed Council

Kye Iris, DFW  
Loren Brokaw, DFW  
Rick Williams, Stillaguamish Flood Control District  
Steve Liske, Ducks Unlimited

### Committee members not in attendance:

Alice Turner, Skagit Audubon  
Ann Bylin, Snohomish County SWM  
Bill Vincent  
Deborah Knight, City of Stanwood  
Derek Marks, Tulalip Tribes  
Henry Lippek, Stillaguamish Flood Control District  
John Magill  
Kathleen Herrman, Snohomish County MRC  
Jon Nelson  
Terrence Dunning, Audubon  
Tristan Peters-Contesse, Puget Sound Partnership

### Welcome and Introductions

Loren Brokaw from the Washington Department of Fish and Wildlife (WDFW) called the meeting to order at 6:30 pm. He welcomed committee members and asked that members of the project team introduce themselves, including Belinda Rotton (WDFW), Kye Iris (WDFW), Jenna Friebe, (WDFW), C.K. Eidem (DU), and Steve Liske (DU). He noted two transitions regarding project team members. First, Jenna Friebe is new to WDFW and to the project team, and second, Doug Hennick has retired from WDFW and is now a stakeholder representing Wild Fish Conservancy.

Hilary Wilkinson, Veda Environmental, introduced herself and reviewed the meeting objectives and meeting agenda. She provided a recap of what occurred at the first two stakeholder meetings to provide context and background for today's meeting. Highlights include:

- **Meeting #1:** Committee members shared their values and vision for Leque Island. This information informed the Project Team in its development of screening criteria and other considerations for use in selecting a preferred alternative.
- **Meeting #2:** Committee members provided feedback on the draft screening criteria and additional considerations. A presentation on hydrodynamic modeling was provided so that the committee could understand how it is being used to help select a preferred alternative.

### Project Status

Loren provided an overview of the current status of the project and the stakeholder engagement process. He noted that notes from the last meeting were distributed to the committee via email. Comments were incorporated and the notes were finalized and redistributed. Additionally, Ducks Unlimited (DU) hired a consultant to develop a groundwater-monitoring plan. Finally, based on input from the last meeting, the project team finalized the screening criteria and additional considerations. These were then applied to each of six design alternatives and an Alternatives Analysis document was created. This work was done to inform WDFW's selection of a preferred design alternative.

Loren provided a recap of what the screening criteria and additional considerations are, and the process used by the project team to apply them to each alternative.

- The **screening criteria** provide the first screen. To pass through this first screen, an alternative must 1) have a funding source, 2) have no expected negative impacts on neighboring properties, 3) meet all permit requirements, and 4) meet contractual obligations attached to the property (from grants etc).
- If all screening criteria are met, **additional considerations** will be applied. The additional considerations are items brought forward by both the committee as well as the project team, and are deemed important for moving an alternative forward.

Loren then reviewed project next steps, which include:

- The alternatives analysis document (which will be shared at tonight's meeting) will be revised based on committee input tonight
- There will be a public open house – this will occur prior to a decision being made
- The Project Team will meet with tribal co-managers
- Regional staff will recommend a preferred design alternative to WDFW staff in Olympia

WDFW hopes to have a preferred alternative identified and selected by late March.

Loren noted that the City of Stanwood was not able to make it tonight. However, he met with them yesterday and ran through presentation with them.

## Hydrodynamic modeling results

Steve Liske, DU, provided a presentation in which he shared results of the hydrodynamic modeling undertaken by PNNL (also known as Battelle). He also provided a recap of the purpose of hydrodynamic modeling and the kind of information it provides to enable selection of a preferred alternative.

He shared that eight alternatives, or “scenarios”, were put through the model. There were three extra scenarios that include the zis a ba site. This site is adjacent to Leque Island and is owned and managed by the Stillaguamish Tribe. The Stillaguamish Tribe is also looking for restoration opportunities at zis a ba, so in the interest of getting an accurate model, that site was included in this modeling effort.

Highlights of Steve's presentation include:

- An overview of what modeling tells us. Namely, it enables team to look at salinity, velocity, depth and bed shear, all of which are important considerations in selecting an alternative.
- When analyzing various scenarios, we are looking for a lack of change in velocity and bed shear, in areas outside of Leque Island, when compared to existing conditions. No significant change indicates that the project will not have detrimental impacts beyond the project boundary.
- An overview of the results of modeling for each scenario was provided. Please refer to presentation.
- For all eight scenarios, hydrodynamic modeling results show:
  - All proposed restoration scenarios appear to be feasible and are predicted to provide habitat and restoration benefits
  - Restoration at Leque and zis a ba appear to function independently of each other with no significant cumulative impacts
  - Inundation frequency and salinity are in the desired range for salmon habitat for each of the scenarios

## Questions and comments

1. Question: In terms of water depth – is that mean high or mean low? How are they measuring it? *Response*: The particular slide shown in the presentation is a snapshot that was taken during a higher high tide. There is information in the full report that shows inundation frequency and depth throughout the year.
2. Question: If looking at it from the perspective of protecting smolts – what about low tide? *Response*: The restoration areas in the scenarios will drain almost entirely during low tides. Depending on the depths of the channels that will form on the site (either man made or naturally), there may be some residual water left in the channels at low tide. Typically, having the site drain and fill with water during tidal cycles is good for fish, as this ensures flushing of water daily and alleviates water quality and stranding concerns.
3. Question: It looks like a full restoration without a training dike (Scenario #3) would have less erosion potential? *Response*: The model indicates that the full restoration scenario without the training dike has less bed shear stress (erosion potential) in portions of existing South Pass channel than the training dike alternative. There is more bed shear stress (erosion potential) in portions of the Leque Island restoration area in the full restoration scenario than the training dike scenario.
4. Question: Does the modeling assume natural progression after the dikes are removed, or is there information put into the model that shows different post-dike conditions? *Response*: The current model does not include any features (swales) or topographic changes that might occur post-restoration. However, once a preferred alternative is selected, more detail will be added to the model to include swales/channels that will likely be excavated as a part of the restoration.
5. Question: Has the model predicted if any of the silt is going to settle out on the Stillaguamish Channel/South Pass/West Pass? *Response*: According to the model, for each of the scenarios, the velocity and bed shear in those channels is virtually unchanged from the existing condition, suggesting that there will be no change to the siltation/scour that is already occurring in those channels. That said, once the preferred alternative is selected, we will look at various specific areas of interest in more detail, to confirm that we are not creating any problematic siltation or scour areas in the channels.
6. Question: Between the training dike and full restoration alternatives, is there any difference? *Response*: Yes, there are some minor differences in the locations of bed shear stresses between the two alternatives. See answer to question #3 for details.

## Application and preliminary results of screening criteria

Loren provided an overview of the preliminary results for each alternative after the screening criteria and additional considerations were applied. He reminded committee members that the criteria are intended to be a tool to aid in the evaluation. The project team developed tables to graphically depict what they did.

A summary of the results of applying screening criteria and additional considerations to each alternative was provided. Highlights are included below.

### **No Restoration (rebuilding the dikes in current footprint)**

- Funding source: highly unlikely
- Permit: very expensive – the whole area is a wetland so doing this would trigger an extremely expensive mitigation project. It would likely result in WDFW having to acquire a different property.
- Contractual obligation: compatible because there would be no changes

### Questions and comments:

- Given the above, why advance this scenario? *Response:* Although we noted that funding and permitting screening criteria are highly unlikely to be met, we decided to advance the alternative to the additional considerations analysis for the sake of being comprehensive in our analysis. Stakeholder input from the first stakeholder meeting supported consideration of this alternative. The project team felt like as long as we acknowledge how unlikely it would be to build this alternative, the additional considerations could be analyzed for this scenario with minimal effort and would be worth doing.

### Do nothing

- This is not actually a proposal to do nothing. One of the provisions from the Army Corps of Engineers (Corps) is that the temporary sand bag repairs need to be removed and a more permanent solution needs to be put in place. This scenario involves removal of the repairs and then “doing nothing”.
- Funding source potential is high.
- Loren provided an overview of the NAWCA replacement lands issue. In short, if the site cannot be farmed for snow geese foraging opportunities, WDFW would need to replace the snow goose forage opportunity elsewhere.

### Questions and comments:

- How many acres and where? 150 acres. *Response:* WDFW does not know where the replacement could be, although it would need to be in or near the same watershed. A willing seller would need to be identified. Other options that do not involve WDFW owning the property outright could be eligible, including leases or easements that guarantee snow goose forage grown on non-WDFW owned lands.
- Would that become a key element before you can proceed to next step? *Response:* There would have to be a written plan in place prior to the project happening.
- Is there any estimate or range of the continuing costs of ensuring that that happens? *Response:* The plan that we would need to draft would include an estimate of continuing costs of fulfilling the plan. Depending on details of the property, this could either be an ongoing cost for WDFW or an asset.
- Recent research shows that bird production goes up when a site is returned to an estuarine condition. True? *Response:* It depends on the bird species. Research does clearly show that waterfowl (including snow geese) use and feed in estuary habitats. There is documentation of snow geese use of rhizomes in the soil.
- Seems like any restoration work done on the site could increase snow geese habitat by intensively planting foods that snow geese like. What is the current use of that site by snow geese – are they using it a lot and are we monitoring it? *Response:* There is no formal monitoring of snow geese on the site.
- Have there been conversations with USFWS about this particular idea (planting marsh vegetation preferred by snow geese)? *Response:* No. Our conversations with USFWS have focused on language in the original contract, and USFWS grant administration standards. USFWS is focusing on the language in the contracts, though conversations are ongoing.
- Why is there a negative score for property maintenance? *Response:* If we restored tidal conditions, there would still need to be work done to manage invasive species. So we would continually have to adapt.
- Are you continuing to maintain existing dikes in this scenario? *Response:* No.

### Levee Breach

- Screening criteria are exactly the same as the do nothing alternative

- Additional considerations
  - Assigned same values as do nothing alternative. However, this option is better than do nothing because of the extra tidal exchange.

#### Questions and comments:

- This alternative is more expensive, correct? *Response:* Yes, there would be some additional cost due to excavation of the additional dike breach location that would make the initial construction cost slightly higher.

#### Setback Dike

- Screening criteria results:
  - The funding source potential is high because this identical project was funded years ago. Therefore, WDFW thinks it is very likely that it would be funded again.
  - It is relatively expensive compared to other options. It would be competing with other projects, and there is some uncertainty regarding how it compares to others. The Salmon Recovery Funding Board (SRFB) had offered to fund it, but the project wasn't constructed. The money was used for additional studies.
  - Permit potential: permitting is likely because previous proposal was permitted. However, it is not a sure thing. WDFW would still need to place fill in a wetland and is not entirely certain that there wouldn't be compensatory mitigation.
- Additional considerations
  - Received a single plus in most of the categories, but not a double plus because the entire site is not being restored.
  - It is unlikely that pheasant release would be possible with this alternative.
  - Wildlife viewing – received a double plus because of the types of habitats that would be formed.

#### Questions and comments:

- This design was from more than 10 years ago and was driven mostly by inholdings. WDFW did not own all of Leque then. It was not an option 10 years ago to flood the entire property.
- Has WDFW tried to calculate how many salmon would rear based on different options? *Response:* No.
- Would you leave the existing road and parking area in place? *Response:* That is what we would intend to do.
- I just went down to Nisqually refuge. It has a setback dike. It is gorgeous, it works, and there are opportunities for wildlife viewing and hunting. I think that doing that on a smaller scale here would be excellent.
- What about maintenance? *Response:* Would fall on DFW to continue to handle maintenance of the site as part of the Skagit Wildlife Area.
- As long as DFW has owned the property, it hasn't done any maintenance. That's why nothing has happened. Had \$500K
- I think that the evaluation of likely funding from SRFB is off base.
- The dikes are in their current state as result of lack of maintenance. This project needs a dedicated stream of funding for maintenance. *Response:* The ratings are compared to how it is now. Many of the scenarios provide an infrastructure so that maintenance is actually possible. It is currently very difficult to maintain with the state of the dikes, because we can't drive equipment on them.

#### Training Dike (removing majority of dike and leaving the section that's outlined in blue)

- Modeling results showed full tidal inundation to the property. Training dike would focus more of the energy into the existing channel.
- Screening criteria
  - Likely that there would be a funding source.
  - Low cost for permit
  - Would have to provide replacement lands for NAWCA
- Additional considerations
  - Salmon habitat: training dike would block some access but assigned a double plus
  - Property maintenance – would still be some work that would have to take place
  - Consistent with salmon recovery so think there would be a fund source

#### Questions and comments:

- What is a training dike? *Response:* Rather than encircling and holding water out, a training dike is a straight, linear berm that prevents waves and flows. Water can still go on either side of the training dike, but it would train the river in its same location.
- Why does the setback option have no issue with permitting, whereas the training dike option does? *Response:* The setback option does not have as many linear feet as the training dike. There will likely be fill needed to reinforce the existing dike. But the training dike would be built to a different standard. Under this alternative, we'd be removing a significant footprint of the dike. This will make permitting easier.
- Instead of removing all the dikes, has WDFW thought about leaving them and letting them disintegrate on their own? *Response:* We haven't looked at the option of removing additional sections of the dike, aside from the 6 options that we are looking at tonight.
- What material would be used to build the training dike? *Response:* It hasn't been determined.
- Do you know what other ESA listed species would benefit from the training dike? *Response:* We included other ESA listed species, including marbled murrelet, bull trout, steelhead and orca. These species are listed in the detailed notes.
- Is there a way to estimate how much Chinook access would be barred with a training dike compared to full restoration? *Response:* It's difficult when talking about natural systems. It would be reduced, but it's very difficult to model.
- Is it possible to consider recycling any of the existing dike material for the setback dike? *Response:* That is a possibility and depends on the soil. A soil analysis would have to be done.

#### **Full Restoration (remove entire dike in entire footprint and let tide move in and out uninhibited)**

#### Questions and comments:

- How much is this going to cost to maintain over time? *Response:* We have not put a dollar figure on it, but have compared alternatives amongst each other with plus/minus system. WDFW has not identified a preferred alternative yet. That is the next step after the public meeting.
- Why is there only one plus for property maintenance? It should be 1.5 pluses. There would still be a need for maintenance, so we had trouble justifying a double plus.
- Please address the costs of the full restoration alternative. *Response:* There are certainly costs associated with this alternative. However, the project team has little doubt that there would be an outside grant source to cover the entire cost. With the setback dike alternative, there is some question as to whether it would be competitive in the grant-funding world.
- Is WSDOT working with you concerning the road and the parking lot? *Response:* Yes. The road and parking lot will be accessible. WSDOT will maintain the connection to Eide Rd. The old parking area adjacent to HWY 532 (where WSDOT currently has equipment staged) will be raised and maintain a connection to the highway.

- Did you give any thought to weighing the additional considerations? *Response:* We did not weigh the considerations amongst each other in this exercise. The purpose is not to end up with a numerical score, but to identify considerations that are important to WDFW and stakeholders, and compare how we'd expect each alternative to impact these considerations.
- City of Stanwood and Flood Control District are very concerned with potential for silt. *Response:* Sites like this are not sources of sediment. The model indicates the bed shear stresses in the existing channel for each alternative, and additional investigation will be done for the selected alternative at points of interest for the City.
- What is the City of Stanwood's position? *Response:* Stanwood has moved forward and has acquired a piece of property adjacent to Leque Island. The City hasn't decided the details of what to do with this property yet, and I understand they will be launching their own process to make a plan. WDFW and Stanwood are continuing to work together.

### Wrap up and next steps

Loren thanked committee members for attending and shared what the next steps will be in the process. Specifically:

- Input from tonight used to modify Alternatives Analysis document, if necessary
- Public Open House to be scheduled
- Meet with tribal co-managers
- Use input from all to inform WDFW's selection of preferred design alternative
- Regional staff recommend preferred design alternative to Olympia staff
- Select preferred design alternative, targeting by the end of March

Hilary provided a quick recap of the meeting. The meeting adjourned at 8:30 pm.